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State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

cc: Steve

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July 20, 2001

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor *DRH*

FROM: James D. Smith, Senior Reclamation Specialist *JDS*

RE: 2000 Third Quarter Water Monitoring, Energy West Mining Company, Deer Creek Mine, C/015/018-WQ00-3

1. Were data submitted for all of the MRP required sites? YES ☒ NO ☐
Identify sites not monitored and reason why, if known:

Flow at HCC01 is in the Annual Report

2. On what date does the MRP require a five-year resampling of baseline water data.
See Technical Directive 004 for baseline resampling requirements. Consider the five-year baseline resubmittal when responding to question one above. Indicate if the MRP does not have such a requirement.

Resampling Due Date

Renewal submittal due 10/07/00, renewal due 2/07/01. Baseline analyses were performed in 1996 and will be repeated every 5 years, i.e., next baseline analyses will be in 2001.

3. Were all required parameters reported for each site? YES ☐ NO ☐
Comments, including identity of monitoring site:

UT0023604-001 - July monthly operational: Field Temperature, Field Conductivity, and Field pH were not reported;
80-48: Field pH not reported;
80-50: Field pH not reported;
NEWUA Meters #2 and #3: Monthly flow and quarterly water quality not reported.
(Monthly flows are included in the Annual Report.)

4. Were irregularities found in the data?

YES [X] NO []

Comments, including identity of monitoring site:

TW-10 3RD North XC-65: sampled on October 3;
Main North-Main East: sampled on October 3;
DCWR1: Elevation of Water (n = 45) is outside two standard deviation range;
RFC3: K (n = 10) and Na (n = 12) are outside two standard deviation range and exceed the reported maximum in the APPX database;
HCC04: HCO₃ (n = 51), Total Hardness (n = 51), and Mg (n = 11) are outside two standard deviation range and below the reported minimum in the APPX database;
Sheba Spring: Field pH (n = 30) is outside two standard deviation range and above the reported maximum in the APPX database;
Ted's Tub: Na (n = 6) and Mg (n = 6) are outside two standard deviation range and above the reported maximum in the APPX database;
79-02: Na (n = 6) is outside two standard deviation range and above the reported maximum in the APPX database;
79-02: Na (n = 6) is outside two standard deviation range and above the reported maximum in the APPX database;
79-28: Mg (n = 6) and Na (n = 6) are outside two standard deviation range and above the reported maximum in the APPX database;
79-32: K (n = 6) is outside two standard deviation range and above the reported maximum in the APPX database;
79-34: HCO₃ (n = 11), Total Alkalinity (n = 12), Ca (n = 3), Total Fe (n = 6), Total Mn (n = 2), and K (n = 0) are outside two standard deviation range and above the reported maximum in the APPX database; Cl (n = 11) is outside two standard deviation range and below the reported minimum in the APPX database;
79-35: TDS (n = 25) is outside two standard deviation range and below the reported minimum in the APPX database;
79-38: Mg (n = 6) is outside two standard deviation range and above the reported maximum in the APPX database;
80-50: Field Conductivity (n = 5) and TDS (n = 5) are outside two standard deviation range and below the reported minimum in the APPX database;
82-51: Cl (n = 10), Lab Conductivity (n = 10), Mg (n = 5), Total Mn (n = 0), K (n = 2), and Na (n = 5) are outside two standard deviation range and above the reported maximum in the APPX database;
89-60: Field Conductivity (n = 9), Mg (n = 5), and TDS (n = 11) are outside two standard deviation range and below the reported minimum in the APPX database;
89-65: TDS (n = 5) is outside two standard deviation range and below the reported minimum in the APPX database;
89-66: TDS (n = 5) is outside two standard deviation range and below the reported minimum in the APPX database; Field Temperature (n = 8) is outside two standard deviation range and above the reported maximum in the APPX database;
89-68: Field Temperature (n = 8) is outside two standard deviation range and above the reported maximum in the APPX database;
P-6 – all three months: Elevation of Water (n = 71) is outside two standard deviation range and above the reported maximum in the APPX database;

5. Were DMR forms submitted for all required sites?

Identify sites and months not monitored:

1 st month,	YES [X]	NO []
2 nd month,	YES [X]	NO []
3 rd month,	YES [X]	NO []

6. Were all required DMR parameters reported?

YES [X] NO []

Comments, including identity of monitoring site:

7. Were irregularities found in the DMR data?

YES [X] NO []

Comments, including identity of monitoring site:

UT0023604-002 - July: Flow (n = 15) is outside two standard deviation range and above the reported maximum in the APPX database;

UT0023604-002 - August: Flow (n = 15) is outside two standard deviation range and above the reported maximum in the APPX database;

8. Based on your review, what further actions, if any, do you recommend?

Numerous values were outside the two standard deviation range. Sample size is usually small, and none of the values are extreme. Recommended action is to watch for trends.

Flow data (monthly) and water quality data (quarterly) for NEWUA Meters #2 and #3 need to be submitted quarterly. Monthly flow data are in the Annual Report, but no water-quality data from these two sites have been submitted since the 3rd quarter 1997.